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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/982,916

10/22/2001

Tadayoshi Nakayama

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03/11/2005

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EXAMINER

MAI, TAN V

ART UNIT

PAPER NUMBER

2124

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,916

Applicant(s)

NAKAYAMA, TADAYOSHI

Examiner

Tan V Mai

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 2,13 and 17-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-12 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/14/02</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's election without traverses of specie I, Claims 1, 3-12, 14-15 and 16, in Paper No. filed 11/18/04 is acknowledged.

Claims 2, 13 and 17-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/18/04.

2. The abstract of the disclosure is objected to because the Abstract should be limited to a single paragraph. Correction is required. See MPEP § 608.01(b).

3. Claims 1, 3-12, 14-15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim language is vague and indefinite. For instance, although independent claims 1 recites "data storage means", the claim fails to recite the necessary detail physical interconnections to either "multiplication means" or "addition means" for effecting the desired output(s) of each arithmetic unit, i.e., the "data storage means" coupled to the input(s) of "multiplication means" and/or "addition means". Sufficient detail physical interconnections must be recited to adequately describe and constitute the proposed "filter processing apparatus". Similarly noted independent claims 12 and 16.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.⁷

Claims 1, 5, 8, 9, 12, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makino '895.

As per independent claim 1, Makino discloses, e.g., see Figs. 3-4, the invention substantially as claimed, including: a cascade of transversal filters (Fig. 4). Each transversal filter (Fig.3) [is considered the claimed "arithmetic unit"] comprises (1) "tap arithmetic units" having the claimed "multiplication means" and "addition means" (e.g., see Abstract) and (2) "delay means" 56-58 which are considered the claimed "data storage means". It is noted that the examiner does NOT considered the claimed:

"data storage means for generating data obtained by delaying the input data by a predetermined amount in accordance with a type of data"

because the feature is not positively the interconnections with other recited means for effecting the desired output of each arithmetic unit. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to design the claimed invention according to Makino's teachings because the proposed device is a filter processing apparatus having cascade feature as claimed.

As per claim 5, the claim adds "scaling process" feature. The feature is old and well known in the filter art.

As per claim 8, the claim adds "forms an image which is to undergo the forward filter process" feature. The filter is well known in the image art.

As per claim 9, the claim adds "discrete wavelet transformation" feature. The filter is well known in the image art.

Due to the similarity of independent claims 12 and 16 to claim 1, they are rejected under a similar rationale.

Due to the similarity of dependent claim 15 to claim 5, it is rejected under a similar rationale.

5. Claims 3-4, 6-7, 10-11 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cited references are art of interest.

7. The following is an examiner's statement of reasons for allowance: the recorded references do NOT teach or suggest the detail features as recited in dependent claims 3-4, 6-7, 10-11 and 14.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan V. Mai whose telephone number is (571) 272-3726. The examiner can normally be reached on Mon-Wed and Fri. from 9:30am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is:

Official (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



**TAN V. MAI
PRIMARY EXAMINER**